

E7.4-10569  
CR-138644

TITLE: "Irrigation scheduling, freeze warning and soil salinity detecting"

NUMBER OF INVESTIGATION: Skylab EREP No. 356-1

CONTRACT NUMBER: T-4105B

PERIOD COVERED: May and June, 1974

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NUMBER OF PAGES: 2

STATEMENT OF PROGRESS:

The following data have been delivered to Weslaco in support of the investigation since May 1.

<u>Coverage</u>	<u>Date of coverage</u>	<u>Comments</u>
SL-4		Duplicate positive S-190A 70 mm transparencies rec'd 6/24/74:
	?	Mag. 52, frames 015-019, Baffin Bay and Coast
	12-5-73	Mag. 52, frames 336-341, Coast and Cameron Co.
	?	Mags. A3 (Color IR) and A4 (Color) frames 041-046, Starr Co. and vicinity
SL-4	?	Duplicate negative S-190A 70 mm transparencies rec'd 7/2/74:
		Mags: A1, A2, A5, and A6, frames 041-046, Starr Co. and vicinity
SL-2	5-30-73	Four seconds of S 192 imagery (9 channels) rec'd 7/2/74.

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(E7.4-10569) IRRIGATION SCHEDULING, FREEZE WARNING AND SOIL SALINITY DETECTING  
Monthly Progress Report, May - Jun. 1974  
(Agricultural Research Service) 2 P  
HC \$4.00  
CSCL 02C G3/13 00569  
Unclass  
N74-28813

Cameron County

The ground truth data are in good shape. Electrical conductivity (ECe) of saturation extracts, a measure of soil salinity, has been run on 76 samples from the 0- to 12-inch depth and on another 76 samples from the 12- to 24-inch depth. On 76 other samples from the 0-to 6-inch depth, the particle size distribution has been determined, and the field spectroradiometer has been used to determine their spectra. The spectra were recorded on X-Y strip chart recorders; the responses at specific wavelengths are being read from the charts now.

Starr County

The woody species and the plant composition have been determined at 6 of the 7 range sites selected for study. Quadruplicate samples have been obtained of the 7 soil types (Catarina, Copita, Garceno, Maverick, Montell, Ramadero, and Zapata) and 1/4 of them have been analyzed for salinity and particle size distribution. The spectra of 7 of them have also been determined with the field spectroradiometer.

Selected microdensitometer transects have been run parallel to Loma Blanca Road on EREP images to see how much the film densities differ among range sites. The range sites do yield distinctive densitometer traces, an indication that they will also be distinctive in the EREP digital tapes. Additional work on the film is planned for the next reporting period.